

data memory means located within said microprocessor housing and in communication with said microprocessor for temporary storage of data;
 communication bus means in communication with said microprocessor for transferring data and instructions from/to plural remote devices;
 visual display means, including plural display lines, in communication with said microprocessor for displaying selected visual data;
 telephone line interface means located within said microprocessor housing for coupling to a telephone line, said telephone line interface means including means for receiving electrical signals from and providing electrical signals to a telephone line, including an off-hook signal to maintain a telephone line connection;
 dialing means operatively connected to said telephone line interface means for selectively providing electrical dialing signals to said telephone interface means; telephone line interface control means located within said microprocessor housing for controlling the operation of said telephone line interface means said control means comprising:
 a control microprocessor in communication with said communication bus means;
 control program memory means in communication with said control microprocessor and storing plural signals to control the operation of said control microprocessor; and
 control data memory means in communication with said control microprocessor for temporary storage of data;
 a speaker for converting electrical signals received from said telephone line interface means to audio signals; and, a microphone for converting audio signals to electrical signals to be provided to said telephone line interface means;
 tone decoding means operatively connected to said telephone line interface means for decoding electrical signals into a predetermined set of digital signal; and display interface means for converting a portion of said display lines which can be anywhere on said display means into signals representing a telephone number to be dialed; whereby a user selects any section of the display means as said selected portion of said display lines, causes a desired telephone number to be displayed within said portion of said display lines and causes said system to call the desired telephone number.

13. The telephone communication system according to claim 12 wherein said program memory means and said data memory means concurrently share signals for operating said microprocessor as an element of the communication system and signals for operating said microprocessor in another function other than as an element of the communication system.

14. The telephone communication system according to claim 12 wherein said visual display means are used by said system only upon selected occurrences and wherein the status of said plural display lines prior to the use of said visual display means by said system is restored by said system upon its cessation of use of said visual display means.

15. The telephone communication system according to claim 14 wherein the status of all of said plural display lines is updated upon each use of said keyboard.

16. The telephone communication system according to claim 15 wherein said telephone line interface means further comprises:

means operatively connected to the telephone line for detecting ringing signals on said telephone line and providing an indicated thereof to said control microprocessor;

means operatively connected to the telephone line and responsive to said control microprocessor for disconnecting said speaker and said microphone from said telephone line while maintaining an off-hook status on said telephone line.

17. The telephone communication system according to claim 16 wherein said telephone line interface means further comprises:

means for generating a hook switch flash signal of variable duration on said telephone line;

means operatively connected to said dialing means for varying the duration of said electrical signals representing telephone dialing tones; and,
 means for varying the sensitivity of said ringing signal detecting means.

18. The telephone communication system according to claim 17 further comprising:

modem means to convert digital electrical signals into pulse modulated electrical analog signals, said modem means operatively connected to said telephone line interface means

whereby selected digital data may be sent via said modem means to a remote device communicating with said telephone line.

19. The telephone communication system according to claim 13 wherein said keyboard is used to provide commands and data to both said communication system and said microprocessor operating in said other function.

20. The telephone communication system according to claim 19 wherein the operation of said data entry keys is communicated to said system prior to being communicated to said microprocessor operating in said other function.

21. The telephone communication system according to claim 20 wherein the operation of predetermined sequence of said data entry keys is communicated to said system but not to said microprocessor operating in said other function.

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